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EXAMINER

MAHMOOD, REZWANUL

ART UNIT PAPER NUMBER

2164

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/802,852 | Applicant(s) KODAMA, SHOJI | |
| | Examiner Rezwanul Mahmood | Art Unit 2164 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/18/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>08/25/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 7, 10, 17, 20, 27, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. In claim 7 line 1 the phrase "can be" renders the claim indefinite.
4. In claim 10 line 2 the phrase "can be" renders the claim indefinite.
5. In claim 17 line 1 the phrase "can be" renders the claim indefinite.
6. In claim 20 line 2 the phrase "can be" renders the claim indefinite.
7. In claim 27 line 1 the phrase "can be" renders the claim indefinite.
8. In claim 30 line 2 the phrase "can be" renders the claim indefinite.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-4, 7-14, 17-24, and 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Shoup (US Publication 2002/0147734).

11. With respect to claim 1, Shoup discloses a storage system for storing an original file and at least one format converted file of the original file comprising:

a storage media (Shoup: Paragraph 15, lines 17-26); and

a file conversion unit which, in response to a request to store an original file, converts the original file to at least one format converted file (Shoup: Item 22 in Figure 1; Figure 5),

wherein said storage system stores the original file and the at least one format converted file on said storage media and manages a relationship between the original file and the format converted file to permit retrieval of either of the original file and the format converted file (Shoup: Paragraph 29, lines 1-12; Paragraph 30).

12. With respect to claim 2, Shoup discloses a storage system according to claim 1, wherein the relationship between the original file and the format converted file is managed by a table which includes at least information of formats to which the original file is converted (Shoup: Paragraph 29, lines 9-12).

13. With respect to claim 3, Shoup discloses a storage system according to claim 2, wherein said table includes a directory of a location of the original file and the format converted file (Shoup: Paragraph 30, lines 5-10).

14. With respect to claim 4, Shoup discloses a storage system according to claim 1,

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wherein said file conversion unit is external of said storage system (Shoup: Item 22 in Figure 1).

15. With respect to claim 7, Shoup discloses a storage system according to claim 1, wherein a file can be read by specifying a file format (Shoup: Paragraph 30, lines 18-23).

16. With respect to claim 8, Shoup discloses a storage system according to claim 1, wherein a file can be stored at different locations on said storage media, on other storage media, or on other storage media of a remote storage system which can be accessed via a network based on a format of said file based on a format of said file or a directory in which files are located (Shoup: Paragraph 15, lines 17-33).

17. With respect to claim 9, Shoup discloses a storage system according to claim 8, wherein storing of a file based on its format is conducted based on a file storing rule (Shoup: Paragraph 17).

18. With respect to claim 10, Shoup discloses a storage system according to claim 1, wherein a list of formats a file is stored in can be obtained (Shoup: Paragraph 29, lines 9-12; Paragraph 30, lines 5-10).

19. With respect to claim 11, Shoup discloses a method of storing an original file and

at least one format converted file of the original file in a storage system which includes a storage media, said method comprising the steps of:

in response to a request to store an original file, converting the original file to at least one format converted file (Shoup: Paragraph 29, lines 1-12; Paragraph 30);

storing the original file and the at least one format converted file on the storage media (Shoup: Paragraph 15, lines 17-26); and

managing a relationship between the original file and the format converted file to permit retrieval of either of the original file and the format converted file (Shoup: Paragraph 29, lines 9-12).

20. With respect to claim 12, Shoup discloses a method according to claim 11, wherein the relationship between the original file and the format converted file is managed by a table which includes at least information of formats to which the original file is converted (Shoup: Paragraph 29, lines 9-12).

21. With respect to claim 13, Shoup discloses a method according to claim 12, wherein said table includes a directory of a location of the original file and the format converted file (Shoup: Paragraph 30, lines 5-10).

22. With respect to claim 14, Shoup discloses a method according to claim 11, wherein a file conversion unit performs the converting and said file conversion unit is external of said storage system (Shoup: Item 22 in Figure 1).

23. With respect to claim 17, Shoup discloses a method according to claim 11, wherein a file can be read by specifying a file format (Shoup: Paragraph 30, lines 18-23).

24. With respect to claim 18, Shoup discloses a method according to claim 11, wherein a file can be stored at different locations on said storage media or on other storage media based on a format of said file (Shoup: Paragraph 15, lines 17-33).

25. With respect to claim 19, Shoup discloses a method according to claim 18, wherein storing of a file based on its format is conducted based on a file storing rule (Shoup: Paragraph 17).

26. With respect to claim 20, Shoup discloses a method according to claim 11, wherein a list of formats a file is stored in can be obtained (Shoup: Paragraph 29, lines 9-12; Paragraph 30, lines 5-10).

27. With respect to claim 21, Shoup discloses a system comprising:
a storage system which includes a storage media for storing files (Shoup: Paragraph 15, lines 17-26); and
a file conversion unit, which is connected to said storage system and which in response to a request to store an original file, converts the original file to at least one

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format converted file (Shoup: Item 22 in Figure 1; Figure 5),

wherein said storage system stores the original file and the at least one format converted file on said storage media and manages a relationship between the original file and the format converted file to permit retrieval of either of the original file and the format converted file (Shoup: Paragraph 29, lines 1-12; Paragraph 30).

28. With respect to claim 22, Shoup discloses a system according to claim 21, wherein the relationship between the original file and the format converted file is managed by a table which includes at least information of formats to which the original file is converted (Shoup: Paragraph 29, lines 9-12).

29. With respect to claim 23, Shoup discloses a system according to claim 22, wherein said table includes a directory of a location of the original file and the format converted file (Shoup: Paragraph 30, lines 5-10).

30. With respect to claim 24, Shoup discloses a system according to claim 21, wherein said file conversion unit is external of said storage system (Shoup: Item 22 in Figure 1).

31. With respect to claim 27, Shoup discloses a system according to claim 21, wherein a file can be read by specifying a file format (Shoup: Paragraph 30, lines 18-23).

32. With respect to claim 28, Shoup discloses a system according to claim 21, wherein a file can be stored at different locations on said storage media or on other storage media based on a format of said file (Shoup: Paragraph 15, lines 17-33).

33. With respect to claim 29, Shoup discloses a system according to claim 28, wherein storing of a file based on its format is conducted based on a file storing rule (Shoup: Paragraph 17).

34. With respect to claim 30, Shoup discloses a storage system according to claim 21, wherein a list of formats a file is stored in can be obtained (Shoup: Paragraph 29, lines 9-12; Paragraph 30, lines 5-10).

Claim Rejections - 35 USC § 103

35. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

36. Claims 5, 6, 15, 16, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoup (US Publication 2002/0147734) in view of Melahn (US Patent 6,003,042).

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37. With respect to claim 5, Shoup discloses a storage system according to claim 1 as set forth in the 35 U.S.C. 102 rejection above, however does not disclose expressly wherein said file conversion unit calculates a hash value of the original file and the format converted file, and

wherein said hash value is used to determine whether the original file or the format converted file has changed.

The Melahn reference, however, discloses using hash value to determine if a new version of a file corresponds to the older or existing version (Melahn: Column 2, lines 32-43).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art, to have added hash value calculation to the file conversion unit.

The suggestion or motivation of doing so would be to store multiple version of an object or file (Melahn: Column 2, lines 8-22). A further suggestion or motivation of doing so would be to efficiently process data files in a archiving system (Shoup: Paragraph 2, lines 12-14).

Therefore, it would have been obvious to combine Shoup with Melahn for the benefit of a file conversion unit which can detect changes in different versions of a file.

38. With respect to claim 6, Shoup in view of Melahn discloses a storage system according to claim 5, wherein a directory list is maintained indicating a corresponding relation between the original file, formats to which the original file has been converted, information based on hash checks indicating whether the original file or the format

converted file has changed, and information indicating a status of the change (Melahn: Column 2, lines 32-43).

39. With respect to claim 15, Shoup in view of Melahn discloses a method according to claim 11, wherein a file conversion unit performs the converting and said file conversion unit calculates a hash value of the original file and the format converted file, and

wherein said hash value is used to determine whether the original file or the format converted file has changed (Melahn: Column 2, lines 32-43).

40. With respect to claim 16, Shoup in view of Melahn discloses a method according to claim 15, wherein a directory list is maintained indicating a corresponding relation between the original file, formats to which the original file has been converted, information based on hash checks indicating whether the original file or the format converted file has changed, and information indicating a status of the change (Melahn: Column 2, lines 32-43).

41. With respect to claim 25, Shoup in view of Melahn discloses a system according to claim 21, wherein said file conversion unit calculates a hash value of the original file and the format converted file, and

wherein said hash value is used to determine whether the original file or the format converted file has changed (Melahn: Column 2, lines 32-43).

42. With respect to claim 26, Shoup in view of Melahn discloses a system according to claim 25, wherein a directory list is maintained indicating a corresponding relation between the original file, formats to which the original file has been converted, information based on hash checks indicating whether the original file or the format converted file has changed, and information indicating a status of the change (Melahn: Column 2, lines 32-43).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rezwanul Mahmood whose telephone number is (571)272-5625. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571)272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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